



**ICL Performance
Products LP**

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nutrifos® 330 Phosphate Blend
Reference Number: AST10074
Date: May 2, 2006
Chemical Family: Phosphate Salts

Company/Undertaking Identification:

ICL PERFORMANCE PRODUCTS LP
622 Emerson Road - Suite 500
St. Louis, Missouri 63141

Emergency telephone

In USA call CHEMTREC: 1 800 424 9300
In Canada call CANUTEC: 1 613 996 6666

General Information: 1 800 244 6169 (Worldwide)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>
Sodium Tripolyphosphate Anhydrous	7758-29-4
Sodium Acid Pyrophosphate	7758-16-9
Sodium Hexametaphosphate	68915-31-1
Tetrasodium Pyrophosphate	7722-88-5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: White powder or granules with no odor

WARNING STATEMENTS

WARNING!
CAUSES EYE AND RESPIRATORY TRACT IRRITATION
MAY CAUSE SKIN IRRITATION

POTENTIAL HEALTH EFFECTS

Likely Routes of Exposure: Skin contact and inhalation

EYE CONTACT: This product may cause pain, redness, and tearing based on toxicity of components.

SKIN CONTACT: This product may cause pain, redness, and swelling. Based on toxicity of components. High dust concentrations for one of the components has been reported to cause mild skin irritation.

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INHALATION: This product causes coughing, chest pain, runny nose, and burning throat. Workers exposed to dust of one of the components of this product reported irritation of the nose and throat.

INGESTION: This product may cause severe nausea, vomiting, abdominal discomfort, and burning sensation based on toxicity studies of the components.

Refer to Section 11 for toxicological information.

4. FIRST AID MEASURES

IF IN EYES OR ON SKIN, immediately flush with plenty of water. Remove material from eyes, skin and clothing. If easy to do, remove any contact lenses. Get medical attention if irritation persists. Remove contaminated clothing. Wash clothing before reuse.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

IF SWALLOWED, do NOT induce vomiting. Rinse mouth with water, get medical attention. Contact a Poison Control Center. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not combustible

HAZARDOUS PRODUCTS OF COMBUSTION: Not applicable

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

6. ACCIDENTAL RELEASE MEASURES

In case of spill, sweep, scoop or vacuum and remove. Flush residual spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

HANDLING

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Do not taste or swallow.

Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

STORAGE: Store in a cool, dry place to maintain product performance

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

SKIN PROTECTION: Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult the glove/clothing manufacturer to determine the appropriate type glove/clothing for a given application. Wash contaminated skin promptly. Launder contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

RESPIRATORY PROTECTION: Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer

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to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 C.F.R. 1910.134.

VENTILATION: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

AIRBORNE EXPOSURE LIMITS: OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise classified (PNOC) which are the least stringent exposure limits applicable to dusts.

OSHA PEL

15 mg/m³ (total dust) 8-hr TWA

5 mg/m³ (respirable) 8-hr TWA

ACGIH TLV

10 mg/m³ (inhalable) 8-hr TWA

3 mg/m³ (respirable) 8-hr TWA

Nutrifos MB 330 contains tetrasodium pyrophosphate which has the following airborne exposure guidelines:

<u>State</u>	<u>Standard</u>	<u>Limit</u>
Australia	Occupation Exposure Limit	5 mg/m ³ 8-hr. TWA
Belgium	Occupation Exposure Limit	5 mg/m ³ 8-hr. TWA
Denmark	Occupation Exposure Limit	5 mg/m ³ 8-hr. TWA
Finland	Occupation Exposure Limit	5 mg/m ³ 8-hr. TWA, 3 mg/m ³
France	Occupation Exposure Limit	VME 5 mg/m ³
Norway	Occupation Exposure Limit	5 mg/m ³ 8-hr. TWA
Switzerland	Occupation Exposure Limit	MAK – week 5 mg/m ³
United Kingdom	Occupation Exposure Limit	5 mg/m ³ 8-hr TWA
United States	Occupation Exposure Limit	5 mg/m ³ 8-hr. TWA

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White powder or granules
Odor:	Odorless
pH:	(as a 1% solution @ 25 C): 8.0-8.6
Melting Point:	> 500 °C
Solubility in Water:	~ 10-12%

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions of storage and use.

MATERIALS TO AVOID: None known

HAZARDOUS DECOMPOSITION PRODUCTS: None known

HAZARDOUS POLYMERIZATION: Does not occur

11. TOXICOLOGICAL INFORMATION

ICL Performance Products LP has not conducted toxicity studies with this material and no data was found in a reasonably extensive search of the literature. However, data on the major component(s) are given below:

Sodium Tripolyphosphate

Oral - rat LD50 - 5,400 mg/kg; practically nontoxic

Dermal - rabbit LD50 - >7,940 mg/kg; practically nontoxic

Eye Irritation - rabbit - 3.3/110.0 (24-hr exp.); slightly irritating

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Skin Irritation - rabbit - 0.0/8.0 (24-hr exp.); nonirritating
Inhalation LC50 > 0.39 mg/L (rat, 4 hr) (Maximum attainable concentration)

Diets containing 0.05, 0.5 and 5.0% sodium tripolyphosphate were fed to rats over 24 months. At the 5.0% level, growth retardation, elevated kidney/body weight ratios, and chronic tubular nephropathy were observed. The no-effect level for chronic toxic effects was 0.5%.

Sodium tripolyphosphate was reported to be mutagenic when tested in a host-mediated assay conducted in mice with Saccharomyces D3. No mutagenic or genotoxic effects were reported in host-mediated assays conducted in mice with Salmonella TA1530 and G46, in microbial assays using six Salmonella strains, in an in vivo rat bone marrow cell clastogenesis assay in in vitro Chinese hamster fibroblast cell and human embryonic lung cell chromosomal aberration assays, and in an in vivo dominant lethal assay conducted in rats.

No adverse effects were observed in a three-generation rat reproduction study with rats fed diets containing 0.5% sodium tripolyphosphate.

No teratogenic, fetotoxic, or maternal toxic effects were observed in rabbits administered sodium tripolyphosphate at 250 mg/kg on days 6 through 19 of gestation.

Sodium Acid Pyrophosphate

Oral - rat LD50 - 3,600 mg/kg; slightly toxic
Dermal - rabbit LD50 - >7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit - 13.0/110.0; slightly irritating
Skin Irritation - rabbit - 0.0/8.0; practically nonirritating
Inhalation LC50 > 0.58 mg/L (rat, 4 hr) (Maximum attainable concentration)

No birth defects were reported in mice, hamsters, or rabbits given sodium acid pyrophosphate during pregnancy. No adverse genetic effects were reported in standard tests using animals or bacterial and yeast cells.

The following components have been identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Tetrasodium Pyrophosphate (a component of sodium tripolyphosphate anhydrous)

Oral - rat LD50: 3,770 mg/kg; slightly toxic
Dermal - rabbit LD50: > 7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit: 43.0/110.0; extremely irritating
Skin Irritation - rabbit (24-hr exp.): 0.0/8.0; non-irritating

Rats fed tetrasodium pyrophosphate in their diet for four months showed a reduced weight gain, urinary changes, increased organ-to-body weight ratios, and slight kidney damage. No birth defects were reports in rabbits, hamsters, mice or rats given this material orally during pregnancy. Tetrasodium pyrophosphate produced no genetic changes in standard tests using bacterial and yeast cells.

Sodium Hexametaphosphate

Oral - rat LD50 - 6,600 mg/kg; practically nontoxic
Dermal - rabbit LD50 - >7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit - 1.3/110.0; slightly irritating
Skin Irritation - rabbit - 0.0/8.0 (24-hr exp.); non irritating
Inhalation LC50 > 3.69 mg/L (rat, 4 hr) (Maximum attainable concentration)

Rats fed sodium hexametaphosphate in their diet for one month showed decreased growth, increased kidney, lung and spleen weight, and kidney damage. Rats fed this material for two years also showed decreased weight gain, increased kidney weight, and kidney changes. No increase in tumors was reported. No adverse effects in reproductive capacity were reported in a multigeneration study using rats fed this material.

12. ECOLOGICAL INFORMATION

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ICL Performance Products LP has not conducted environmental toxicity studies with this product. However, data on the major component(s) are given below:

Sodium Tripolyphosphate:

Invertebrate: 48-hr EC50 Daphnia magna: > 1000 mg/L; Practically Nontoxic

96 hr. LC 50 > 100 mg/L, non-toxic (Rainbow trout, Inland silversides and mysid schrimp). [FMC 189-1081, 1082 & 1083]

48 hr. EC 50 > 100 mg/L, non-toxic (Daphnia magna) [FMC 189-1084]

13. DISPOSAL CONSIDERATIONS

This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

US DOT

Not regulated for transport

Canadian TDG

Not regulated for transport

15. REGULATORY INFORMATION

TSCA Inventory: Listed

DSL Inventory: Listed

WHMIS Classification: D2(B) - Materials Causing Other Toxic Effects

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): Immediate

Section 302 Extremely Hazardous Substances: Not Applicable

Section 313 Toxic Chemical(s): Not Applicable

CERCLA Reportable Quantity: Not applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contains all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

16. OTHER INFORMATION

	Health	Fire	Reactivit y	Additional Information
Suggested NFPA Rating	1	0	0	
Suggested HMIS Rating	1	0	0	J J = Splash goggles, gloves, synthetic apron, dust & Vapor respirator

Reason for revision: Revised sections 8 + 11. Supersedes MSDS dated: November 1, 2005
Product Use: Moisture binder for meat products

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